



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,897	04/16/2004	Ravi Sundaram	03-4024	2220
32127	7590	03/01/2010		
VERIZON LEGAL DEPARTMENT PATENT MANAGEMENT GROUP 1320 N. COURTHOUSE ROAD 9TH FLOOR ARLINGTON, VA 22201-2525				
EXAMINER			PYZOCHA, MICHAEL J	
ART UNIT		PAPER NUMBER		
		2437		
NOTIFICATION DATE		DELIVERY MODE		
03/01/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@VERIZON.COM

Office Action Summary	Application No.	Applicant(s)
	10/826,897	SUNDARAM ET AL.
	Examiner MICHAEL PYZOWA	Art Unit 2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 January 2010.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-54 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-54 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application
6) Other: _____

DETAILED ACTION

1. Response filed 01/12/2010 has been received and considered.
2. Claims 1-54 are pending.

Claim Objections

3. Claims 21-29 and 39 are objected to because of the following informalities:
These claims recite "computer-readable medium" and while the specification only gives examples of non-transitory media it is suggested to change "computer-readable medium" to "non-transitory computer-readable medium" to avoid any potential problems under 35 USC 101. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
5. Claims 1, 2, 4-6, 21, 22, 30, 31, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooley (US 20030055979) in view of Jinmei et al. (US 20050076139), Yip et al. (US 6980550) and further in view of Liston (US 20040103314).

As per claims 1, 21, 30, and 39, Cooley discloses receiving a request from a user to obtain an address (see paragraph [0018] and Abstract); obtaining said address; obtaining a substitute return address corresponding to said address, said substitute

return address corresponding to a used one of a block of addresses (see paragraphs [0018] and [0021]); returning said substitute return address to said user (see paragraph [0018] and Abstract).

Cooley fails to explicitly disclose generating a substitute return address, applying a function to the address to obtain said substitute return address and monitoring access to said address; and detecting an unauthorized attempt to access said address when an attempted address corresponds to an unused one of said block of substitute addresses.

However, Jinmei et al. teaches generating a substitute return address (see paragraph [0015]), Yip et al. teaches applying a function to a requested address to obtain a substitute return address (see Yip et al. column 3 lines 41-48 and lines 55-67) and Liston teaches receiving requests to obtain an address, obtaining the address (see paragraphs [0038] and [0039]), monitoring accesses to the address and detecting unauthorized attempts when the request corresponds to an unused address (see paragraph [0031]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to substitute the address generating method of Cooley and Jinmei et al. with the one of Yip et al. and to use the monitoring of Liston in the Cooley system.

Motivation to do so would have been to prevent the exposure of the privacy of the communication host or the user to danger (see Jinmei et al. Abstract), to provide load balancing (see Yip et al. column 2 lines 55-67) and to provide intrusion detection and countermeasures (see Liston paragraphs [0012]-[0017]).

As per claims 2, 22, 31, and 40, the modified Cooley, Jinmei et al., Yip et al. and Liston system discloses hashing a user address of said user to obtain one value of the range of values mapping to said block of substitute addresses, said one value designating said used one of said block of substitute addresses (see Yip et al. column 3 lines 41-48 and 55-67).

As per claims 4-6, the modified Cooley, Jinmei et al., Yip et al. and Liston system discloses tracing a user when said attempted address corresponds to said unused one of said block of substitute addresses (see Liston paragraphs [0038]-[0041]); blocking additional unauthorized attempts when said attempted address corresponds to said unused one of said block of substitute addresses (see Liston paragraphs [0038]-[0042]); and wherein unused ones of said block of substitute addresses corresponds to attack detectors (see Liston paragraphs [0038]-[0044]).

6. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Cooley, Jinmei et al., Yip et al. and Liston system as applied to claims 1 and 2 above, and further in view of Hamzy et al. (US 6941368).

As per claims 3 and 7, the modified Cooley, Jinmei et al., Yip et al. and Liston system fails to disclose hashing the time of a request as a part of the function.

However, Hamzy et al. teaches hashing a user address, destination address and time (see column 6 lines 42-49).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a time with the hash of the modified Cooley, Jinmei et al., Yip et al. and Liston system.

Motivation to do so would have been to only allow a resource (i.e. address) to be accessed during a certain time period (see Hamzy et al. column 6 lines 42-63).

7. Claims 8-11, 13-20, 23-26, 28, 29, 32-35, 37, 38, 41-45 and 47-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Cooley, Jinmei et al., Yip et al. and Liston system as applied to claims 1, 21, 30 and 39 above, and further in view of Chari et al. (US 20040019781).

As per claims 8-11, 25, 26, 29, 34, 35, 38, 44, and 45 the modified Cooley, Jinmei et al., Yip et al. and Liston system tem fails to explicitly disclose changing said used one of said block substitute addresses over time.

However, Chari et al. teaches changing on of the used addresses over time (see Chari et al. paragraphs [0013], [0050], [0058]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to change the used substitute addresses of the modified Cooley, Jinmei et al., Yip et al. and Liston system.

Motivation to do so would have been to update the addresses during an attack to invalidate addresses used in the attack (see Chari et al. paragraphs [0057]-[0058]).

As per claims 13-20, 23, 24, 28, 32, 33, 37, 41-43, and 47-54, the modified Cooley, Jinmei et al., Yip et al., Liston and Chari et al. system discloses tracing a user when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0041]); blocking additional unauthorized attempts when said attempted address corresponds to said unused one of said block of addresses (see Liston paragraphs [0038]-[0042]); and wherein unused ones of said

block of addresses corresponds to attack detectors (see Liston paragraphs [0038]-[0044]).

8. Claims 12, 27, 36 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Cooley, Jinmei et al., Yip et al., Liston and Chari et al. system as applied to claims 8, 25, 34, and 44 above, and further in view of Griffiths et al. (US 6286045).

As per claims 12, 27, 36, and 46 the modified Cooley, Jinmei et al., Yip et al., Liston and Chari et al. system fails to explicitly disclose randomly choosing an address.

However, Griffiths et al. teaches randomly choosing an IP address (see column 23 lines 47-49).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to randomly choose an address in the modified Cooley, Jinmei et al., Yip et al., Liston and Chari et al. system.

Motivation to do so would have been to determine round trip times (see column 23 lines 44-51).

Response to Arguments

9. Applicant's arguments filed 01/12/2010 have been fully considered but they are not persuasive. Applicant argues that Liston detects unauthorized users by determining whether a communication is directed to an actual IP address, not an unused one of said block of substitute addresses because Liston does not use substitute addresses and the system will send packets to unused IP address where applicant's claims would not (see

pages 12-13); there is insufficient motivation to combine all of the references (see pages 14-15); there is no identification of the level of ordinary skill in the art at the time of the invention (see pages 15-16); independent claims 21 and 39 are allowable for the reasons put forth above with respect to claim 1 (see pages 16-17); and the dependent claims are allowable for the reasons put for the above (see pages 17-18).

With respect to Applicant's argument that Liston detects unauthorized users by determining whether a communication is directed to an actual IP address, not an unused one of said block of substitute addresses because Liston does not use substitute addresses and the system will send packets to unused IP address where applicant's claims would not, Liston paragraph [0031] explicitly states that "Unauthorized users are detected by monitoring...to determining whether the communication is directed to toward a used IP address...or **toward an unused IP address**" (emphasis added). Furthermore, "Once the unauthorized communication has been identified as being directed toward an unused IP address, countermeasures are used". In this portion Liston teaches monitoring both used and unused IP addresses. While these addresses (used or unused) are not taught as being "substitute addresses" or a "block of substitute addresses", Liston is not relied upon for teaching the substitute addresses; Cooley is relied upon for teaching these substitute addresses/block of addresses. When combined as put forth above the method of monitoring addresses as taught by Liston would be used to monitor the substitute addresses/block of addresses of Cooley. Furthermore, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re*

Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant also states that a data packet would not be sent to an unused one of the clock of substitute addresses. However, this limitation is not recited in the claims; while the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Based on the foregoing, claim 1 is obvious of the cited prior art.

With respect to Applicant's argument that there is insufficient motivation to combine all of the references the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, each of the references provides a beneficial feature not taught by the other references. Specifically, Jinmei et al. teaches generating a substitute return address (see paragraph [0015]), Yip et al. teaches applying a function to a requested address to obtain a substitute return address (see Yip et al. column 3 lines 41-48 and lines 55-67) and Liston teaches receiving requests to obtain an address, obtaining the address (see paragraphs [0038] and [0039]), monitoring accesses to the address and detecting unauthorized attempts when the request corresponds to an unused address (see paragraph [0031]); each of which is not taught by the main reference of Cooley.

Furthermore, these additions/modifications add the benefits of preventing the exposure of the privacy of the communication host or the user to danger (see Jinmei et al.

Abstract), providing load balancing (see Yip et al. column 2 lines 55-67) and providing intrusion detection and countermeasures (see Liston paragraphs [0012]-[0017]). At the time of the invention one of ordinary skill in the art would see these benefits of adding/modifying Cooley. Therefore, there is proper motivation to combine all of the references as put forth above.

With respect to Applicant's argument that there is no identification of the level of ordinary skill in the art at the time of the invention, MPEP 2141.03 II states, "If the only facts of record pertaining to the level of skill in the art are found within the prior art of record, the court has held that an invention may be held to have been obvious without a specific finding of a particular level of skill where the prior art itself reflects an appropriate level. *Chore-Time Equipment, Inc. v. Cumberland Corp.*, 713 F.2d 774, 218 USPQ 673 (Fed. Cir. 1983). See also *Okajima v. Bourdeau*, 261 F.3d 1350, 1355, 59 USPQ2d 1795, 1797 (Fed. Cir. 2001)." Furthermore, Applicant has not provided arguments as to why a skilled artisan would not have found the combination obvious. Also, based on proper motivation to combine the references and the art taught by the references the cited prior art reflects an appropriate level of skill. Therefore, the standards put forth in MPEP 2141 have been satisfied.

Applicant's arguments with respect to the remaining independent and dependent claims are moot in view of the above response.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PYZOCZA whose telephone number is (571)272-3875. The examiner can normally be reached on Monday-Thursday, 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Pyzocha/
Primary Examiner, Art Unit 2437